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TO PROFESSOR YUICHI TAMURA



*Yūichi Tamura*

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## IN HONOR OF PROFESSOR YUICHI TAMURA

This volume of the Special Contributions of the Geophysical Institute, Kyoto University, No. 7, 1967 is issued in honor of Dr. Yuichi Tamura, Professor of Geomagnetism and Geoelectricity at the Geophysical Institute, Kyoto University. He retires from the University at the end of March, 1968, after a long service as Professor.

Professor Tamura was born on September 27, 1904 in Okayama, and had grown there. After graduation from Takahashi Middle School and the Sixth High School, he entered Kyoto University in 1925, in the Faculty of Engineering, majoring in Electrical Engineering. He chose "Lightning and Lightning Protection" as his graduation thesis. This connected his life thereafter to the study of thunderstorm electricity. Just after the graduation from the University, he visited the late Professor Toshi Shida at the Geophysical Institute, and he was given the position of Research Associate at the Institute. He studied the atmospheric physics and meteorology under the guidance of Professor Tadao Namekawa and Professor Kenzo Sassa.

In 1930 Professor Mankichi Hasegawa returned from abroad and Professor Tamura began the study of Atmospheric Electricity and Geomagnetism under the guidance of Professor Hasegawa. In 1932 an international cooperative program of the Second Polar Year started and the observation of geomagnetism was planned at the Geophysical Institute. The observation station was set up at the volcano Mt. Aso. Professor Tamura was engaged in the observation with his colleague Late Professor Eiichi Nishimura. Data from this observation were analysed by Professor Hasegawa, Professor Tamura and Professor Masajiro Ota, and the study of geomagnetism in Japan started here.

After the Second Polar Year Professor Tamura was engaged in research of atmospheric electricity. He was appointed as Assistant in 1933 and then Lecturer in 1937. In this year he moved to Beppu and was engaged in the research of atmospheric electricity at the Geophysical Research Station (1937-1940).

Professor Tamura measured atmospheric electric field by using the "mill type" field meter which was developed originally by Professor Hasegawa and was improved by Professor Tamura. His main interest is in the study of thunderstorm electricity. He investigated the character of recovery curves of the electric field change after lightning flashes.

In 1945 Professor Tamura received the degree of Doctor of Science from Kyoto University. The title of his thesis was "On the Distribution of Electricity



in Thunderclouds". He investigated in this paper the life history of thunderclouds in respect to the electrical distribution in clouds. He found that the electrical polarity is negative in the early stage of cloud growth, converting to positive in the later stage. At that time there had been a famous controversy on the electrical polarity between Professor C.T.R. Wilson and Sir George C. Simpson. The fact that the thunderstorm cloud has the cellular structure is at present well established but Professor Tamura already pointed out the cellular structure in respect to the electrical activity in this paper in 1945. The Tamura's paper was not only remarked in the field of thunderstorm electricity but also the remarkable beginning of investigation of atmospheric electricity in Japan. Professor Tamura was appointed as Associate Professor in this year, and continued his characteristic works.

In 1954 the First International Conference on Atmospheric Electricity was held at Portsmouth, New Hampshire, U.S.A. Professor Tamura was an only delegate at the conference from Japan and he read the paper "Analysis of the Electric Field After a Lightning Discharge". Results of this analysis has long been referred to by a number of scientists. On this trip to the United States he visited various laboratories of atmospheric electricity; Department of Terrestrial Magnetism, Carnegie Institution of Washington; United States Weather Bureau; Massachusetts Institute of Technology; Atmospheric Electricity Laboratory, Geophysical Research Directorate, Air Force Cambridge Research Center; Atmospheric Electricity Laboratory, Naval Research Office. Professor Tamura's attendance at the Conference and visiting the various laboratories made the international exchange in the field of atmospheric electricity very active between Japan and the foreign countries. Professor Tamura was also invited to the Second Conference at Portsmouth in 1958. On this trip he visited Blue Hill Meteorological Observatory; Arthur D. Little Inc.; Coast and Geodetic Survey; Fredericksburg Magnetic Observatory; Aerophysics Laboratory, Geophysics Research Directorate, Air Force Cambridge Research Center. Professor Tamura was also invited to the Third Conference at Montreux, Switzerland, in 1963. After the conference he visited Forschungsstelle des Astronomie, Institute der Universität Tübingen; Technische Hochschule, Archen; Institut d'Optique, Laboratoire de Physiques de Nuages et d'Electricite Atmospherique; Cavendish Laboratory, University of Cambridge. He thus brought much information of world research activity in the field of atmospheric electricity back to Japan.

In 1957-1958 an international cooperative observation of Geomagnetism and Geoelectricity was carried out under the program of the International Geophysical Year. On the opportunity of this activity the chair of Geomagnetism and Geoelectricity was opened in the Geophysical Institute, and he was appointed as

Professor in charge.

Professor Tamura was Director of Abuyama Seismological Observatory (1964-1966). He is now Director of Volcanological Laboratory at Aso (1964-), and of Geophysical Research Station at Beppu (1966-). He is also Councilor of the Society of Terrestrial Magnetism and Electricity of Japan, a member of the Committee of Geophysical Research Connection in Science Council of Japan, and a member of IAMAP-IAGA Joint Committee on Atmospheric Electricity.

Meeting the demand of world scientists the Fourth International Conference on Atmospheric Electricity is to be held in 1968 in Japan, and Professor Tamura is nominated for Vice Chairman of the Conference and also for Chairman of Local Organizing Committee of the Conference.

Professor Tamura is a warm-hearted quiet gentleman who loves art as well as nature. He paints pretty well and a good photographer. He loves walking in the mountains or quiet places looking for colorful nature.

He retires, under the age limit, on March 31, 1968 from Kyoto University. Fortunately for us, however, he will take a position as Professor, Faculty of Science, Kyoto Sangyo University effective April 1, 1968, to further promote the research of atmospheric electricity and geomagnetism in Japan. We pray that his healthy, productive life will continue for many years.

November, 1967

H. Maeda and T. Ogawa



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